

Appl. No. : 10/039,291  
Filed : January 3, 2002

### REMARKS

Applicant has amended Claims 37, 38 and 41. Applicant has added new Claims 42-54.

#### Rejection Under 35 U.S.C. § 112, Second Paragraph

The Examiner rejected Claims 38-40 under 35 U.S.C. § 112, second paragraph. Applicant has amended Claim 38 to correct the antecedent basis. Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection of Claims 38-40 under 35 U.S.C. § 112, second paragraph.

#### Rejection Under 35 U.S.C. § 102

##### *Claim 37*

The Examiner rejected Claim 37 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,762,493 to Rechmann ("Rechmann"). Applicant respectfully asserts that Rechmann does not set forth each and every element of Claim 37, and therefore does not anticipate Claim 37. Applicant's Claim 37 is novel and non-obvious over Rechmann.

Claim 37 has been amended to expressly recite a home treatment system that comprises a *viscous* fluoride mixture for application to the tooth and a light source that is adapted *to bind the viscous fluoride mixture to the tooth*.

Rechmann simply discloses a system for cooling a tooth with a flushing liquid at the contact point of the laser light beam (Rechmann, col. 1, lines 35-45). Rechmann's flushing liquid cannot adhere to a tooth, but is expressly meant to flow away from a tooth (Rechmann, col. 1, lines 53-60). Although Rechmann mentions that fluoride may be added to the flushing liquid (Rechmann, col. 4, lines 17-20), nowhere does Rechmann teach or suggest the application of a *viscous* fluoride mixture (such as a paste or a gel) to the tooth. Moreover, Rechmann does not teach or disclose a laser light beam that is adapted to bind the viscous fluoride mixture to the tooth, as expressly recited in Applicant's amended Claim 37. Indeed, Rechmann's only disclosure of fluoride is as a simple additive to the cooling flushing liquid. By contrast, Applicant's Claim 37 is directed a laser light source that is specifically adapted to bind a viscous fluoride mixture to the tooth.

In addition to using a flushing liquid as a cooling mechanism, Rechmann also discloses that his flushing liquid can be used for flushing away "the removed substance." (Rechmann, col.

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1, lines 46-52). In other words, Rechmann's laser light beam is used to create craters in the tooth by drilling and a liquid jet is needed to flush away the excess material from the drilled site. By contrast, Applicant's Claim 37 is directed a laser light source that is adapted to substantially prevent or minimize any damage to the tooth. As amended, Applicant's Claim 37 expressly recites a light source having "*an energy density adapted to substantially prevent structural damage to the tooth.*" Because Rechmann discloses a laser light beam that is adapted to produce crater formation, Rechmann effectively teaches away from Applicant's Claim 37, which is designed to minimize structural damage to the tooth.

Accordingly, in light of the above remarks, Applicant's Claim 37 is novel and non-obvious over Rechmann. Thus, Applicant respectfully requests that the Examiner withdraw the rejection of Claim 37. Applicant further submits that Claims 38-54 are also allowable over the cited art because they depend from an allowable base claim (Claim 37), and because they recite independently patentable features.

#### **Rejection Under 35 U.S.C. § 103(a)**

The Examiner rejected Claims 38-40 under 35 U.S.C. § 103(a) as being unpatentable over Rechmann in view of U.S. Patent No. 6,439,888 to Boutoussov. The Examiner rejected Claim 4 under 35 U.S.C. § 103(a) as being unpatentable over Rechmann in view of Haider *et al.*

Assuming *arguendo* that the cited references could be properly combined, Claims 38-41 are patentable over the cited art. As discussed above, Applicant has amended Claim 37 so as to be novel and nonobvious over Rechmann. Because the combination of Rechmann and Boutoussov and the combination of Rechmann and Haider *et al.* do not teach or suggest the limitations of amended Claim 37, Applicant respectfully submits that Claims 38-41, which depend from Claim 37, are allowable over the cited art. Further, Claims 38-41 are also allowable because they recite features that are novel and nonobvious in view of the combined cited art.. Accordingly, Applicant respectfully requests that the Examiner withdraw the 35 U.S.C. § 103(a) rejection of Claims 38-41.

In view of the above remarks, Applicant respectfully submits that Applicant's claims are patentable over the cited art, and that the present application is in condition for allowance.

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### CONCLUSION

In view of the foregoing remarks, Applicant respectfully asserts that the present application is fully in condition for allowance. If any issues remain that may be addressed by a phone conversation, the Examiner is invited to contact the undersigned at the phone number indicated below.

Appropriate fees have been submitted herewith. No further fees are believed to be due. However, please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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Dated: July 14, 2004

By: 

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